

# Perpendicular Lines

## Objectives

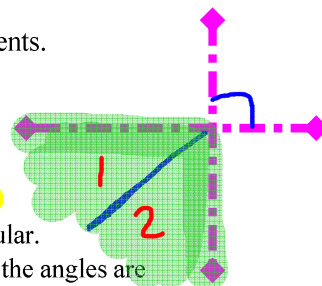
Students will learn how to apply the properties of perpendicular lines.

### Remember from last week..

- **Perpendicular lines** are two lines that intersect to form **right angles**.
- Since lines that form one right angles always form **congruent adjacent angles** you can conclude that two lines are perpendicular, by definition, once you know that any one of the angles they form is a right angle.
- We also use the word *perpendicular* for intersecting rays and segments.

The following three theorems relate to perpendicular lines:

- If two lines are perpendicular, then they form **congruent adjacent angles**.
- If two lines form congruent adjacent angles, then the lines are perpendicular.
- If the exterior sides of two adjacent acute angles are perpendicular, then the angles are complementary. (1 & 2)



$\cong$  congruent  
 $m\angle A$  perpendicular  
measure